

Title (en)

Process for the production of acetaldehyde by the reaction of methanol with synthesis gas.

Title (de)

Verfahren zur Herstellung von Acetaldehyd durch die Reaktion von Methanol und Synthesegas.

Title (fr)

Procédé de préparation de l'acétaldéhyde par réaction de méthanol avec le gaz de synthèse.

Publication

EP 0001936 A1 19790516 (EN)

Application

EP 78300607 A 19781108

Priority

- GB 1941478 A 19780513
- GB 4632977 A 19771108

Abstract (en)

[origin: US4225517A] Acetaldehyde is produced by reacting methanol with hydrogen and carbon monoxide at elevated temperature and pressure in the presence of a catalyst cobalt, an iodide or a bromide and one of the elements arsenic, antimony or bismuth, in the form of a compound thereof, and in the additional presence of one or more of the following additives: (i) an inert liquid such as chlorobenzene, decanoic acid, a polydimethylsiloxane fluid or a methyl phenyl silicone fluid, (ii) an acid and/or an acid derivative such as acetic acid, acetic anhydride, propionic acid, phenylacetic acid, benzoic acid, methyl acetate or butyl acetate. (iii) and oxygen-containing organic compound such as 1,4-dioxane, tetrahydrofuran, di-n-propylether, diphenylether, acetone, acetaldehyde, n-propanol or n-butanol. (iv) a non-polar solvent such as an alkane, benzene or an alkyl-substituted benzene. The presence of the additive suppresses by-product formation and thereby improves the yield and selectivity to acetaldehyde.

IPC 1-7

C07C 47/06; **B01J 31/00**; **C07C 45/00**

IPC 8 full level

B01J 31/00 (2006.01); **B01J 31/02** (2006.01); **B01J 31/18** (2006.01); **B01J 31/20** (2006.01); **C07C 47/06** (2006.01); **C07B 61/00** (2006.01); **C07C 45/00** (2006.01); **C07C 45/49** (2006.01); **C07C 67/00** (2006.01)

CPC (source: EP US)

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C-Set (source: EP US)

C07C 45/49 + **C07C 47/06**

Citation (search report)

- [A] US 3356734 A 19671205 - MICHIO KURAISHI, et al
- [P] CHEMICAL ABSTRACTS, vol. 88, 1978, Columbus, Ohio, (USA) SAITO, MASAO: "Acetaldehyde from methanol, carbon monoxide and hydrogen", abstract nr. 74045g; & JP-A-52 133 914 (MITSUBISHI GAS CHEMICAL) (09-11-1977)
- [A] CHEMICAL ABSTRACTS, vol. 78, 1973, nr. 158933b, Colombus, Ohio, (USA) ASANO, TOKINOBU: "Acetaldehyde and ethanol from methanol, hydrogen and carbon monoxide"; & JP-B-48 002 525 (MITSUBISHI GAS CHEMICAL)

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DOCDB simple family (application)

EP 78300607 A 19781108; CA 315128 A 19781031; DE 2861439 T 19781108; IT 2953778 A 19781107; JP 13773678 A 19781108; US 95770178 A 19781106; ZA 786181 A 19781102